

²⁰³Fr α decay (0.549 s) 1967Va20,1980Ew03,2005Uu02

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh	NDS 108, 79 (2007)	15-Oct-2006

Parent: ²⁰³Fr: E=0; J ^{π} =(9/2⁻); T_{1/2}=0.549 s 15; Q(α)=7260 50; % α decay=95.0 SY

²⁰³Fr-T_{1/2}: weighted average of 0.53 s 2 (2005Uu02), 0.560 s 15 (2005De01), 0.55 s 2 (1980Ew03). Others: 0.5 s +9-2 (1994Le05), 0.7 s 3 (1967Va20).

²⁰³Fr-% α decay: ²⁰³Rn was observed by 1967Va20 as an ϵ -decay product of ²⁰³Fr.

Others: 2005Uu03 (from the same group as 2005Uu02), 2005De01, 1998Bo14, 1994Le05.

A 7118 α group (T_{1/2}=1.04 s +35-21) correlated with 6517 α group with T_{1/2}=9.4 s +31-19 remains unassigned (2005Uu02,2005Uu03).

¹⁹⁹At Levels

E(level)	J ^{π}	Comments
0	(9/2 ⁻)	J ^{π} : from ¹⁹⁹ At 'Adopted Levels'.

α radiations

E α	E(level)	I α [‡]	HF [†]	Comments
7131 5	0	100	1.68 10	E α : weighted average of 7130 6 (2005Uu02), 7132 5 (2005De01), 7120 25 (1994Le05), 7135 10 (1980Ew03), 7130 5 (1967Va20). 7130 α is correlated with 6643 α from α decay of ¹⁹⁹ At g.s. (2005Uu02). A 7128 α (T _{1/2} =0.51 s +51-17) correlated with 6021 α with T _{1/2} =4.3 s +43-14 (possibly from α decay of ¹⁹⁹ At g.s.) (2005Uu02) probably corresponds to the 7130 α group.

[†] r₀(¹⁹⁹At)=1.526; extrapolated value.

[‡] For absolute intensity per 100 decays, multiply by syst 0.95.